

**Case Report****POSTCHOLECYSTECTOMY BILOMA IN  
70 YEAR FEMALE**

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**Abstract**

Biloma is a localized collection of bile after biliary tree injury or spontaneous rupture. 70 year lady presented with infected biloma is managed by external drainage, biliary stenting and drugs without laparotomy following laparoscopic cholecystectomy in spite of failed immediate ERCP due to mass effect of biloma however two weeks post op. ERCP attempt did not show overt leak point of contrast in biliary tree and sealing of leakage from small biliary duct perhaps anomalous concluded. We report such an educational case which may be difficult to every surgeon to anticipate at the time of operation.

**Keywords**

Biloma, Biliary tree anomaly, Injury, Laparoscopic cholecystectomy.

**Introduction**

Biloma is a localized collection of bile in the peritoneal cavity which develops after a few days following operative or some other injuries to biliary tract, although it can rarely occur spontaneously by rupture of biliary system due to some pathology. Open or

laparoscopic cholecystectomy (both technique) can be complicated by biloma. It is a life threatening condition and needs good judgement to manage. We report a case of biloma following laparoscopic cholecystectomy.

**Case report**

70 year female was admitted for pain in abdomen associated with fever and jaundice following laparoscopic cholecystectomy for chronic cholecystitis with cholelithiasis 4 days ago in referring hospital. Dyspepsia and discomfort in abdomen without jaundice was her initial problem and developed progressively increasing pain, jaundice, distension of abdomen and intermittent fever after the operation. On examination Pulse 110/m, mild jaundice, Fever 103<sup>0</sup>F, distended upper abdomen with tenderness, guarding and vaguely defined lump, no fluid thrill or shifting dullness or bruit. Leucocytosis, normal electrolytes (Na,K), Bilirubin 2 mg% and raised alkaline phosphatase (350 unit) were her baseline lab.report. Cholangitis with bile leak was provisionally diagnosed. IVdrip, antimicrobial (ceftriaxone, metronidazole etc.), N/G tube aspiration, urinary catheterization reduced her

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discomfort. Ultrasonography showed fluid collection in upper abdomen especially in right side localized by bright thick shadow of soft tissue (of bowel/omentum). CT scan supported above findings and biloma suspected (figure-1). Upper G.I. endoscopy showed gastritis and ERCP could not be performed due to pressure effect of the mass. Aspiration of the mass revealed biliary fluid and biloma confirmed. 1100 ml of bile was externally drained by placing small drainage tube through abdominal wall under ultrasonographic control. The mass progressively decreased and biliary stent was placed successfully by ERCP (figure-2,3). ERCP did not show overt leakage of contrast; because of distinctly outlined large biliary duct and bile being present in biloma, we clinically interpreted it as sealed leaking hole of small biliary duct. Patient condition improve day by day and fever settled, jaundice relieved. Gradually patient began eating well. When no fluid came out through the external drain tube and collapse of biloma cavity ascertained by ultrasonography, the tube was taken out. She was discharged home after 1 ½ months stay in hospital. Follow-up at 3 months showed complete improvement and biliary stent is now planned to take out.

## Discussion

The results of cholecystectomy are impressive but not uniformly so good; indeed 25% of patients will have continuing symptoms. Injuries to biliary tree may occur in few patients e.g 2 per 1000 or 1 in 300 to 500 in cholecystectomy operations by conventional open methods. Laparoscopic cholecystectomy is no exception and the incidence of injuries to biliary tree ranges from 0-7%. Common causes

of bile leak include cystic duct leak, common bile duct or hepatic duct injury or Gall bladder bed leak. Anomalies in anatomy of different components of biliary tree is one of the important factors to result in unexpected injury during operation. These anomalies are so frequent that the surgeon should always expect the unusual. Ectopic drainage of intrahepatic ducts into the gallbladder and cystic duct causes bile leak by biliary tree injury which are being unrecognized even by experienced surgeons at the time of operation. Moreover a subvesical duct (20% to 50% of cases) deeply embedded in cystic plate joins either the common hepatic duct or the right hepatic duct and hence injury may occur during cholecystectomy if the cystic plate (In gallbladder bed) is not preserved resulting in postoperative biliary leak. ERCP taken in our present case indicates that this small bile duct or other segmental ducts of posterior sectoral duct might have been injured to result in the complication of biloma, because gross contrast leak was not visualized in distinctly outlined large bile duct in ERCP. The leak was probably sealed at two weeks post operative period while ERCP was done because small leaks heal up within a few days. Moreover, after the external drainage through abdominal wall to reduce pressure and volume of localized bile collection in peritoneal cavity, the mass effect of biloma was reduced markedly and hence second attempt to ERCP and placement of biliary stent was successful. Control of sepsis and general postoperative care needs intensive support. This approach of avoiding laparotomy is due to improving condition of the patients by treatment mentioned above and is consistent with report



